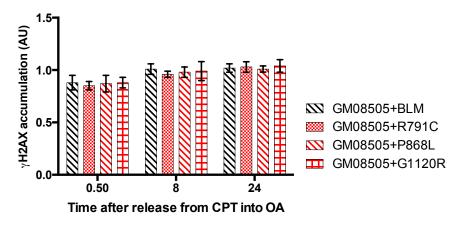


**Figure S1.** Representative examples of the response of Bloom syndrome cells (GM08505) expressing wildtype BLM and BLM variants to replication-dependent DNA breaks induced by exposure to 1  $\mu$ M CPT for 1 hour. Accumulation and elimination of  $\gamma$ H2AX was determined by Western blot over a 48-hour time course.



**Figure S2.** Effect of PP2A inhibition on  $\gamma$ H2AX accumulation in Bloom syndrome cells expressing wildtype BLM and hypomorphic BLM variants. Cells were exposed to 1  $\mu$ M CPT for 1 hour and released into media with 25 nM ocadaic acid (OA). H2AX phosphorylation levels were determined after 0.5, 8 and 24 hours. Non-complemented Bloom syndrome cells were not viable at the 24 hour time point.